

We claim:-

1. A process for the preparation of low-odor flexible
5 polyurethane foams by reacting organic and/or modified
organic polyisocyanates (a) with a polyetherol mixture (b)
and, if required, further compounds (c) having hydrogen atoms
reactive toward isocyanates, in the presence of water and/or
10 other blowing agents (d), catalysts (e), flameproofing agents
(f) and, if required, further assistants and additives (g),
wherein the polyetherol mixture (b) consists of
 - 15 b1) at least one difunctional to octafunctional polyetherol
based on ethylene oxide and, if required, propylene oxide
and/or butylene oxide, having an ethylene oxide content
of at least 30% by weight, based on the total amount of
alkylene oxide used, and an OH number of from 20 to
200 mg KOH/g, and
 - 20 b2) at least one polyetherol based on propylene oxide and/or
butylene oxide and, if required, ethylene oxide, having
an OH number greater than 20 mg KOH/g, the ethylene oxide
content being less than 30% by weight, based on the total
25 amount of alkylene oxide used,
and the foaming is effected in an index range of less than
150, the catalyst used comprising at least one catalyst
supporting the polyisocyanurate reaction.
- 30 2. A process as claimed in claim 1, wherein the ethylene oxide
content of the polyol (b1) is more than 60% by weight, based
on the total amount of alkylene oxide used.
3. A process as claimed in claim 1 or 2, wherein the polyol (b1)
35 has more than 30% of primary OH groups.
4. A process as claimed in any of claims 1 to 3, wherein the
polyol (b1) is used in amounts of at least 30% by weight,
based on the total weight of the component (b).
- 40 5. A process as claimed in any of claims 1 to 4, wherein the
polyol (b2) is used in amounts of less than 70% by weight,
based on the total weight of the component (b).

45

906/2000 rs/gb February 6, 2001

2

6. A process as claimed in any of claims 1 to 5, wherein water is used as blowing agent (d) in amounts of from 1 to 10, preferably from 1 to 5, % by weight, based on the total weight of the components (b) to (g).

5

7. A process as claimed in any of claims 1 to 5, wherein the catalyst (e) used is an alkali metal salt and/or alkaline earth metal salt.

- 10 8. A process as claimed in any of claims 1 to 5, wherein the catalyst (e) used is potassium acetate.

9. A process as claimed in any of claims 1 to 8, wherein the flameproofing agents (f) are halogen-free.

15

10. A process as claimed in any of claims 1 to 9, wherein the flameproofing agents (f) used are melamine and, if required, expanded graphite.

- 20 11. A process as claimed in any of claims 1 to 10, wherein the organic and/or modified organic polyisocyanates (a) used are tolylene diisocyanate, mixtures of diphenylmethane diisocyanate isomers, mixtures of diphenylmethane diisocyanate and polyphenylpolymethylene polyisocyanate or
25 tolylene diisocyanate with diphenylmethane diisocyanate and/or polyphenylpolymethylene polyisocyanate.

12. A process as claimed in any of claims 1 to 10, wherein the organic and/or modified organic polyisocyanates (a) used are
30 NCO-containing prepolymers formed from the reaction of the isocyanates (a) with the polyetherols (b) and, if required, components (c) and/or (d).

13. A process as claimed in any of claims 1 to 12, wherein the
35 foaming is effected in an index range of from 50 to 150.

14. A low-odor flexible polyurethane foam, which can be prepared as claimed in any of claims 1 to 13.

- 40 15. The use of a flexible polyurethane foam as claimed in claim 14 as carpet, upholstery, seat and packaging material and in the hygiene sector.

45